

Date: Sun, 21 Aug 94 04:30:16 PDT
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #279
To: Ham-Digital

Ham-Digital Digest Sun, 21 Aug 94 Volume 94 : Issue 279

Today's Topics:

900MHz phone spread spectrum systems
 ?Fastest speed on HF/SSB ?
 [Q] best software for KAM+
 AEA DSP2232 Mailing List
 Filters for TEKK's
 HELP..TCP/IP (3 msgs)
 icom ic-r70
 Kantronics KPC-3 or MFJ 1270C?
 Off the shelf modems for packet?
 PKTMON12 HAMCOM JVFAX
 Radio Shack TRS-80 Model 100 for Packet?
 Winsock packet driver?

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 18 Aug 1994 07:26:24 GMT
From: hookup!europa.eng.gtefsd.com!howland.reston.ans.net!pipex!sunic!
trane.uninett.no!eunet.no!nuug!EU.net!ub4b!imec.be!buytaert@ames.arpa
Subject: 900MHz phone spread spectrum systems
To: ham-digital@ucsd.edu

Nigel Orr (orr@tk17) wrote:

: Can I suggest that the original poster refers to a basic text on
: Spread Spectrum Comms, rather than relying on often-conflicting
: net.hearsay. As an introduction, I would recommend Spread Spectrum
: Systems, R.C. Dixon, second edition, John Wiley & sons, New York,

: 1984. There are also many papers on the subject from IEEE journals
: and conference proceedings, some of which are good introductory
: tutorials.
[...]

Yes, I have seen some howlers too in the followups. Correcting
is - currently - too time consuming for me, so I thought I would
give a very nice introduction reference:

IEEE Transactions on Communications, Vol.Com-30, No.5. May 1982.
"Theory of Spread-Spectrum Communications - A Tutorial"
R. L. Pickholz, D. Schilling, L. M. Milstein.

Note the date ! This is a very good text. People in the business
will recognize the 'Schilling' from the 'Taub and Schilling'
classic.

Hope someone finds this useful,

Stef

--

Steven Buytaert

WORK buytaert@imec.be

HOME buytaert@innet.be

'Imagination is more important than knowledge.'
(A. Einstein)

Date: 21 Aug 1994 01:10:37 -0700
From: ihnp4.ucsd.edu!news.cerf.net!nntp-server.caltech.edu!news.claremont.edu!
kaiwan.com!not-for-mail@network.ucsd.edu
Subject: ?Fastest speed on HF/SSB ?
To: ham-digital@ucsd.edu

What is the fastest speed of digital transmission on HF/SSB radio ?
using which protocol and modem ?

--

John Lin *** Save the planet, save the world ! ***

e-mail: jlin@kaiwan.com

Date: 20 Aug 1994 07:34:57 -0700

you are invited to join our Mailing list (started on May 12, 1994).
Please subscribe by sending a Mail to

dsp2232-request@rmi.de [or dsp2232-request@Aachen.Germany.EU.net]
with the subject: "subscribe" .

If you would like to share your experiences of knowledge on the
unit, write you contributions to

dsp2232@rmi.de [or dsp2232@Aachen.Germany.EU.net].

=====
Automatic weekly mailing
=====

Date: Sat, 20 Aug 1994 02:31:10 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!usc!nic-nac.CSU.net!
charnel.ecst.csuchico.edu!csusac!csus.edu!netcom.com!ka4byp@network.ucsd.edu
Subject: Filters for TEKK's
To: ham-digital@ucsd.edu

John Bednar (jkbe@lenna) wrote:
: I am looking for suppliers that sell 21.4 Mhz IF crystal filters
: that I can stuff into a TEKK data radio. I'd like to experiment
: with higher data rates. Has anyone been through this before?

: John, WB3ESS
: aljkbe@attme.att.com

--

Bob Merritt KA4BYP -----> ka4byp@netcom.com <-----

Date: 19 Aug 1994 22:15:40 -0700
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!darkstar.UCSC.EDU!news.hal.COM!olivea!
isc-br!tau-ceti!on-ramp.ior.com!not-for-mail@network.ucsd.edu
Subject: HELP..TCP/IP
To: ham-digital@ucsd.edu

I could sure use some help in getting started on TCP/IP!
I have various versions of NET, NOS and BM and none of them seem to
work with each other.. Also, I have tried putting my PK232mbx into
KISS mode and cannot seem to get it to work.. Turning KISS ON or with

latest firmware I have KISS \$01 results in TNC hanging up..not able to do a restart.. Is there something wrong with my TNC?

Thanks for any help offered.

Bob, KG7WC

--

```
+-----+-----+-----+
| Robert J. Raymond | Spokane, Washington | bobr@on-ramp.ior.com |
| Patricia Raymond | Amateur Callsign KG7WC | 70235.430@compuserv.com |
+-----+-----+-----+
```

Date: Sat, 20 Aug 1994 16:31:24 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!swrinde!
cs.utexas.edu!chpc.utexas.edu!news.utdallas.edu!feenix.metronet.com!
usenet@network.ucsd.edu
Subject: HELP..TCP/IP
To: ham-digital@ucsd.edu

In <3343hs\$1o4@on-ramp.ior.com>, bobr@on-ramp.ior.com (Robert J. Raymond) writes:
>I could sure use some help in getting started on TCP/IP!

Have you checked out the NOSintro Book by Ian Wade? It should get you started. The ARRL had some copies on order back in Jun. Don't know what there status is. 350+ pages of text and illustraitions for \$25 is a good bargain.

Also... you should see what version of NOS others around you are using. I think it's always best to start off with what others are using so you can get local help from them.

> Also, I have tried putting my PK232mbx into
>KISS mode and cannot seem to get it to work.. Turning KISS ON or with
>latest firmware I have KISS \$01 results in TNC hanging up..not able to do
>a restart.. Is there something wrong with my TNC?

Some TNC's... go into kiss mode with the command KISS ON and nothing else. Once your in KISS mode, your TNC is going to appear to be 'hung up'. You won't be able to enter commands from the keyboard. You might just want to do what your doing and then start NOS. GL.

73's de Jack - kf5mg
Internet - kf5mg@kf5mg.ampr.org - 44.28.0.14
- kf5mg@metronet.com - work (looking for)
AX25net - kf5mg@kf5mg.#dfw.tx.usa.noam - home (817) 488-4386

Date: Sat, 20 Aug 1994 20:12:19 GMT
From: iat.holonet.net!vectorbd!jp11@uunet.uu.net
Subject: HELP..TCP/IP
To: ham-digital@ucsd.edu

The NOSView stuff is available as a set of files on many LLBBS's.
The one listed below has it many many other IP-helpers,

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```
~~~~~  
Jim Lill / Vector Board BBS \  
jp11@vectorbd.com \ 716-544-1863/2645 /  
wa2zkd@wb2psi.#wny.usa.na GENie: ZKD
```

Date: 19 Aug 94 14:09:54 +
From: mvb.saic.com!news.alpha.net!pacifier!rainrgnews0!psgrain!
charnel.ecst.csuchico.edu!olivea!spool.mu.edu!howland.reston.ans.net!EU.net!
sun4nl!idn!z111!n310!f128!Pieter.Van.de@ihnp4.ucsd.edu
Subject: icom ic-r70
To: ham-digital@ucsd.edu

hello all;

I'm still using a icom ic-r70 but would like very much to have a computer interface as to simplify tuning etc. There should have been some made in the not to distant past and if anyone should have or know anything about such a thing I would like it very much to hear from you.....

--

| Internet: Pieter.Van.de.Voort@f128.n310.z111.idn.nl

|

| Standard disclaimer: The views of this user are strictly his own.

Date: Fri, 19 Aug 94 23:17:49 -0500
From: news.delphi.com!usenet@uunet.uu.net
Subject: Kantronics KPC-3 or MFJ 1270C?
To: ham-digital@ucsd.edu

Gary Ross <ross@novax.llnl.gov> writes:

>I am looking into getting into packet and was looking for input as to a
>preference between the Kantronics KPC-3 and the MFJ 1270C (or another TNC I

Hi Gary...just noticed your message and as a very pleased owner of a kpc3

thought that I should respond. I have had the kpc3 for almost a year and have found it to be an inexpensive and well built unit. I am currently running it in kiss mode with jnos 1.10d, but have used it with all types of software. Just a quick response...for what it's worth!
cul...73, Dave

Date: Sat, 20 Aug 1994 15:15:15 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!library.ucla.edu!europa.eng.gtefsd.com!emory!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: Off the shelf modems for packet?
To: ham-digital@ucsd.edu

In article <dany.52.0010804C@arti.vub.ac.be> dany@arti.vub.ac.be (Dany Vereertbrugghen) writes:

>I was just wondering : wouldn't it be possible to use a normal
>modem for packet radio. I don't know much about this, so ...?
>Can someone point out the difficulties to me or give comments on
>the idea?

This is a Frequently Asked Question. The answer is that if you have a modem that can do Bell 202 (not 212) *half duplex* without need to negotiate a connection, and if you can do the HDLC and AX.25 in software on your computer, then yes you can use your phone modem. In fact, it was availability of surplus leased line Bell 202 modems that made packet originally take off. However, such modems haven't been made in at least 10 years, more like 15, so it's unlikely your modem can do the job.

Gary

--

Gary Coffman KE4ZV		You make it,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.	uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244			gary@ke4zv.atl.ga.us

Date: Sat, 20 Aug 94 15:55:06 EDT
From: juniper.almaden.ibm.com!VNET.IBM.COM@uunet.uu.net
Subject: PKTMON12 HAMCOM JVFX
To: ham-digital@ucsd.edu

In <940818085256@ken_durham.sc.ti.com> Ken Durham writes:

>G4WNC, the author of "Decode" a column in Shortwave Magazine, mentioned a
You are right about your mail bouncing..... You can get Hamcom30 and
Jvfax60 via FTP to nic.funet.fi in the directory pub/ham/misc. You might

take a look in pub/ham/packet directory also. I understand that Jvfax70 will be available soon.

```
=====
Bob Hamilton          | Remember..The light that you see at the end
(rfhamilton@vnet.ibm.com) | of the tunnel just might be a train !
=====
```

Date: Sat, 20 Aug 1994 15:22:18 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!library.ucla.edu!europa.eng.gtefsd.com!emory!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: Radio Shack TRS-80 Model 100 for Packet?
To: ham-digital@ucsd.edu

In article <Custux.8Fv@freenet.carleton.ca> aa642@FreeNet.Carleton.CA (Gordon Phillips) writes:

>
>I use packet on my 386 computer with an ASA PK-88 tnc through my Realistic
>HTX-202 handheld 2 meter radio. I would like to try operating portable
>packet. I have been offered an old TRS-80 Model 100 computer with manual
>I am told is in good working order.
>
>My questions are:
>
>1) Is this rather old computer suitable for portable packet?

Yes indeed. The only problem is the 40 column lines. Most packet is formatted for a 80 column screen, so lines wrap and make formatted messages look funny.

>2) the model 100 has an rs232 port -- do I need any other hardware or can
> I simply connect my pk88 directly to that port?

All you need is a RS232 cable.

>3) Will the communications software in the computer work satisfactorily
> with the pk88 tnc?

Yes.

>4) the model 100 runs at 300 bps through its internal phone modem, what
> speed can I expect to operate the tnc via the rs232 port?

The TRS100 will support faster speeds on it's serial port. I don't recall exactly how fast it will go, I sold mine a while back, but I'm sure it'll do 9600 and maybe 19.2 kb.

The Mod 100 is still a good portable packet terminal because of it's excellent battery life and relatively small size.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				gary@ke4zv.atl.ga.us

Date: Sun, 21 Aug 1994 07:32:40 GMT
From: netcomsv!netcom.com!tcj@decwrl.dec.com
Subject: Winsock packet driver?
To: ham-digital@ucsd.edu

Bob Donnell, KD7NM (rdonnell@eskimo.com) writes:

> There are folks who are working on writing a packet driver to go
> between Windows TCP/IP applications (Winsock or FTP's PACKET driver
> interface) and a KISS-capable TNC.

Eureka! I've been anxiously waiting for someone to take this one on. Can you tell us more, Bob?

Todd, KB6JXT

Date: Sat, 20 Aug 1994 14:36:52 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!europa.eng.gtefsd.com!emory!
wa4mei!ke4zv!gary@network.ucsd.edu
To: ham-digital@ucsd.edu

References <32b56i\$ot5@Tut.MsState.Edu>, <32d90d\$2gg@vixen.cso.ui,
<3306v8\$jbi@vixen.cso.uiuc.edu>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: Looking for DXCluster software

In article <3306v8\$jbi@vixen.cso.uiuc.edu> k9cw@prairienet.org (Andrew B. White) writes:

>While I agree with you that PC use of AX.25 is not the best for distributing
>spots, it is, currently, the only game in town.

Note that broadcast servers us AX.25 too, just UI frames instead of connected mode frames. The FCC has us locked into AX.25 wrappers for

unattended third party use.

>AK1A has something like
>400 nodes installed around the world, and they all talk to each other (altho
>the email facility comes close to being useless if the mail has to go more
>than one hop). Besides, if the network is configured as it should be,
>with local users on one frequency and the inter-node link on another, I
>am not sure that the amount of bandwidth required is an issue.

While splitting the users off the backbone is essential to making the systems work well at all, it **does** increase the amount of bandwidth the systems tie up. The real problem is that connected mode bulletin distribution uses nearly 26 times the channel capacity of a broadcast server. That means in practice, at our current low channel speeds, that channels have to be **dedicated** to Packet Cluster activity rather than being timeshared with other packet uses. That's bad spectrum utilization.

Of course faster channel speeds can help, and I note with approval that Packet Clusters seem to be among the first to embrace faster channel speeds (out of necessity), first jumping to 2400 baud and now going to 9600 baud. But that's only a less than 2 and less than 9 increase in channel capacity respectively at best (actually much worse than that on a simplex frequency due to turnaround and overhead delays). But a simple change to a broadcast protocol would **immediately** give a nearly 26 fold increase in available channel capacity. Since it's **only software** (heh), the change could be relatively quick and painless too.

Note, broadcast use would free up channels only by allowing more than 26 stations per cluster. The channel would still have to be dedicated to the broadcast server. But the server could also serve more than just DX spots with the excess channel capacity. It could also distribute other types of bulletins and files in it's idle time.

I don't think most connected mode servers are a good use of packet resources any longer. Broadcast servers are so much more efficient that Cluster **and** BBSs should change over as rapidly as practical. There remain some cases where connected mode works best, like serving low density WANs that need digis to get coverage. For higher density areas, however, the broadcast server is very much superior for most uses. (Personal Email may remain an exception.) Perhaps we need to think about making broadcast the bulletin and file distribution default, and connected mode the exception, in future server designs.

Gary

--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary

Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | | gary@ke4zv.atl.ga.us

Date: Sat, 20 Aug 1994 15:04:35 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!library.ucla.edu!europa.eng.gtefsd.com!
emory!wa4mei!ke4zv!gary@network.ucsd.edu
To: ham-digital@ucsd.edu

References <32d90d\$2gg@vixen.cso.uiuc.edu>, <3306v8\$jbi@vixen.cso.uiuc.edu>,
<1994Aug18.200851.17094@nosc.mil>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: Looking for DXCluster software

In article <1994Aug18.200851.17094@nosc.mil> craigr@marlin.nosc.mil writes:
>

>I also agree that AX.25 is not the best protocol for sending DX spots but
>PacketCluster is an AX.25 application that requires the minimum equipment
>on the user end. A radio, TNC, and dumb terminal is the user investment. It
>would seem that to implement a more efficient protocol would certainly require
>a computer on the user end to sort things out. Some of the OF's barely mastered
>getting a dumb terminal to talk to a TNC, it would be real interesting watching
>them trying to become computer literate. Hi..

I'll repeat, broadcast servers use an AX.25 wrapper too. It's just a UI
frame instead of a connected mode frame and acknowledgement.

As for the OFs with dumb terminals, I suspect they are the exception.
Dxers generally want the newest and biggest toys. Even the old guys
use logging programs, propagation prediction programs, etc. It may
have taken them longer to become computer users, but many of them
have overcome their fear of the unknown and pushed ahead rather than
watch their spot on the Honor Role slip.

>But if someone came out with a system that offered enough advantages over the
>current Cluster software, I think it might catch on. There are many problems
>with PC that could be overcome by a more robust protocol which would be very
>attractive to the sysops. My own feeling is that PacketCluster needs competition
>or many of the problems with it are not going to be solved.

I think that's right.

Gary

--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary

534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				gary@ke4zv.atl.ga.us

End of Ham-Digital Digest V94 #279
